

times as long as the second, about six or seven times as long as thick; apical joints about twice as long as thick. Ocelli small, the distance between the lateral ocelli about equal to the distance from lateral ocellus to median ocellus; ocellular line one and one half times the postocellar line. Scutum and scutellum mostly polished and impunctate; notauli distinct, punctate and ending in a punctate depression at middle of mesoscutum. Scutellar groove shallow, crenulate. Mesopleuron polished, the sternaulus wide and rather weakly punctate. Propodeum rugose, the lateral carinae slightly defined at apex. Metapleuron more coarsely sculptured on posterior half than anteriorly. Hind basitarsus equal to, or greater in length, than the following joints combined. First abdominal tergite with median depression at base, the distance between its spiracles equal to the distance from spiracle to base of tergite. First three tergites aciculate-striate, the following tergites very faintly shagreened. Radial vein arising a little beyond middle of stigma, its first abscissa a little less than half the length of second.

Color black. Scape, pedicel, base of mandibles, palpi, legs including all coxae, and the first three sternites of abdomen stramineous; hind tibiae and all tarsi fuscous. Wings hyaline, the veins brownish black; stigma nearly uniformly black but with a small area at base indistinctly paler.

Mag.—34 x 102x.

Type-locality.—Bedford, Ohio.

Type.—Cat. No. 43170, U. S. National Museum.

Described from two females, type and one paratype, collected by the writer at Bedford, Ohio, June 27, 1930.

The species is named for Mr. Joseph Porter Harris of Cleveland, Ohio, an advocate of this science.

Many thanks are due Mr. A. B. Gahan, U. S. Bureau of Entomology, for his criticism of the manuscript.

CONCERNING SOME TINGITIDAE FROM THE PHILIPPINES (HEMIPTERA), WITH NEW SPECIES.

By CARL J. DRAKE, *Ames, Iowa.*

This paper contains notes on nine species of Tingitidae from the Philippine Islands, three of which are described below as new. I am indebted to the late Dr. C. F. Baker of the Philippine Islands and to the United States National Museum for the privilege of studying the specimens.

Paracopium philippinensis, n. sp.

Dark fuscous-brown, the paranota and costal area of elytra brownish testaceous with transverse nervelets mostly fuscous-brown. Antennae rather long, moderately stout; segment I slightly thicker and a little longer than II; III slightly swollen towards apex, the short golden hairs closely appressed and not very distinct; IV moderately swollen, clothed with much longer, more slender,

and much more prominent hairs; proportions, 12: 9: 64: 34. Rostrum extending a little beyond anterior coxae; rostral channel open behind. Bucculae closed in front, more or less brownish testaceous. Head fuscous-brown; posterior spines short, yellowish, directed forward, contiguous with head, extended a little beyond posterior margins of eyes; median spine greatly reduced or entirely wanting; anterior pair stout, short, conical, directed inwardly, their tips frequently touching.

Pronotum coarsely pitted, strongly swollen, tricarinate; lateral carinae slightly curved, constricted a little behind the humeri; collum very distinct, reticulate, a little lighter in color, slightly emarginate in front. Paranota very narrow, composed of a single row of small areolae. Wings clouded, considerably longer than abdomen. Elytra with areas distinctly marked off; costal area moderately wide, uniseriate, the areolae hyaline; subcostal area mostly biseriate, some places triseriate; discoidal area bounded by a prominent costate nervure, the outer margin nearly straight, narrowed at both base and apex with four areolae at widest part; sutural area with areolae considerably clouded with fuscous. Legs very dark fuscous-brown.

Length, 3.83 mm.; width, 1.17 mm.

Holotype (male) and *allotype* (female) Island Sibuyan, Philippine Islands, Baker collection, U. S. N. M., Washington, D. C. *Paratypes* (four specimens), taken with type, in collections of U. S. N. M. and writer. This species is probably most closely allied to *P. lewisi* Distant from which it differs in proportional lengths of the antennal segments.

Serenthia vicinalis Drake.

Female, Mt. Maquiling, Luzon, Philippine Islands, Baker collection.

Cromerus bakeri, n. sp.

Slightly larger than *C. kalshoveni* Drake but differing in having shorter antennae, slightly less tumid pronotum, very differently formed lateral margins of anterior lobe of pronotum, and distinct lateral carinae on posterior portion of pronotum. Head short, black, with golden scalelike pubescence on the median portion. Posterior spines appressed, directed anteriorly, extending to the middle of eyes. Rostrum extending to intermediate coxae. Antennae moderately slender, shortly pilose, ferruginous brown, the apical and first two segments a little darker; proportions, 12: 9: 56: 35.

Body ferruginous brown, somewhat shiny, clothed with scale-like, golden, decumbent pubescence. Pronotum strongly swollen, very shiny, coarsely pitted, narrowed anteriorly; median carina very prominent, the lateral short, slightly divaricating, extending from tumid elevation to posterior margin. Collum very prominent, strongly raised, jointly raised along the median line with median carina, with a row of rather large cells along the anterior margin. Calli very strongly depressed, black. Pronotum with a large, thick, round, carinalike structure on each side of anterior lobe connecting the lateral margin

with collum, the carina forming two large opaque cells on each side. Elytra rather dull, a little longer than abdomen, jointly rounded behind; nervures of discoidal area dark fuscous, the areolae opaque; costal area narrow, uniseriate, the areolae a little larger and lighter in color at widest part; subcostal area biseriate; discoidal area narrowed at both base and apex, widest near middle, outer margin slightly curved, areolae not arranged in very regular rows. Wings a little longer than abdomen, smoky. Legs moderately long, dark ferruginous brown.

Length, 4.68 mm.; width, 1.68 mm.

Holotype, female, Island Samar, Philippine Islands, collected by C. F. Baker, in writer's collection. The antero-lateral margin of the pronotum separate this species at once from the known species of *Cromerus* Distant.

***Cromerus kalshoveni* Drake.**

Female, Butuan, Mindanao Islands, Philippine Islands, Baker collection. This species has been recorded heretofore only from Kediri, Java, collected by L. Kalshoveni, on *Vitex heterophylla* Roxb.

***Cromerus invarius* (Walker).**

Fifty-five specimens, Butuan, Mindanao Island and Island Samar, Philippine Islands, collected by C. F. Baker, U. S. N. M. Up to the present time, this species has been recorded only from the type locality, New Guinea. Mr. W. E. China, who has kindly compared a female of the above series with Walker's type in the British Museum of Natural History, London, states, "Very closely allied to if not identical with *C. invarius* Walk. and differing only in slightly smaller size and in rather shorter and more robust fourth antennal segment." As the long series of specimens shows a little variation in size and length of the last antennal segment, it seems advisable to identify the Philippine specimens as *invarius*. The male genital structures of the species of *Cromerus* should be studied.

C. invarius Walker has a much longer body and also longer antennae than *kalshoveni* Drake or the new species described below. The fourth antennal segment of *invarius* is also considerably longer; the scalelike, golden, decumbent pubescence of the antennae is very short and not very conspicuous.

***Diplocysta nubilia* Drake.**

Singapore, Straits Settlements (six specimens), and Cuernos Mts., Negros, Philippine Islands (one specimen), Baker Collection. The Singapore specimens are from the type locality and were probably collected with the type (female).

Cysteocheila pictus (Distant).

Female, Sandakan, Borneo; female, Mt. Maquiling, Luzon, Phillipine Islands, Baker collection.

Stephanitis quercus Bergroth.

Baguio, Benguer, Phillipine Islands (two specimens), Baker collection.

Tingis buddleiae, n. sp.

Elongate-ovate, brownish testaceous, frequently with whitish exudations on head, pronotum, and to a more limited extent on reticulations, clothed with long, fine, somewhat decumbent hairs, those along the lateral margins of paranota and elytra longer, bristly and almost spinelike. Head covered with whitish exudation, adorned with five long erect spines, the anterior pair converging. Rostrum reaching between posterior coxae; intermediate and posterior legs rather widely separated. Bucculae almost contiguous in front. Antennae moderately long, stout, widely separated at base, brownish, beset with long setae; segments I and II considerably swollen, the latter shorter and slenderer; III tapering a little towards apex, two and a half times as long as IV; proportions, 7: 5: 34: 14. Legs moderately stout, brown, the tarsi darker.

Pronotum brown, closely and rather finely pitted, slightly swollen through disc, tricarinate; each carina composed of one row of very small areolae; lateral carinae converging posteriorly; median carina raised anteriorly, forming a small rooflike hood, the anterior margin almost truncate. Paranota rather broad, slightly reflexed, the outer margin jointly rounded with both anterior and posterior margins, projecting a little anteriorly beyond pronotum, triseriate in front, biseriate at humeri. Elytra broad, slightly narrowed posteriorly; costal area broad, triseriate, the areolae fairly large and arranged in regular rows; subcostal area biseriate, the areolae distinctly smaller; discoidal area finely reticulated, slightly impressed, bounded by a prominent vein, with five or six rows of cells at its widest place, narrowed at both base and apex.

Length, 3.51 mm.; width, 1.59 mm.

Holotype (male), *allotype* (female), and one *paratype* (male), Los Banos, Phillipine Islands, Baker collection, U. S. N. M. *Paratype*, female, Mt. Makling, Luzon, writer's collection. This species was collected on *Buddleia asiatica* Lour.

Actual date of publication, January 26, 1931.